

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An input apparatus for performing an input operation on a front surface of a panel, comprising:

input detection means for detecting an input operation ~~and confirming performed on the front surface of the panel, and for determining~~ whether the input operation is a pressing operation or a touching operation ~~being performed on the front surface of the panel by determining whether a signal from the panel becomes stable for at least a predetermined period of time, the signal from the panel being generated based on the input operation;~~

waveform generation means for generating a first signal waveform having a first amplitude ~~when~~ while the input detection means detects that the input operation is being performed, and generating a second signal waveform having a second amplitude which is larger than the first amplitude ~~after~~ based on a determination by the input detection means ~~detects that the signal from the panel has become stable for at least the predetermined period of time, thus indicating~~ the input operation is ~~[[a]]~~ the pressing operation; and

panel deforming means for deforming the panel ~~corresponding to~~ based on the signal waveforms generated by the waveform generation means.

2. (Previously Presented) The input apparatus as set forth in claim 1,  
wherein the first signal waveform generated by the waveform generation means has a higher frequency than the second signal waveform generated by the waveform generation means.

3. (Currently Amended) The input apparatus as set forth in claim 1,

wherein the input detection means detects ~~[[a]]~~ the signal from the input operation ~~that and the signal~~ changes as the input operation is being performed on the front surface of the panel ~~and uses the signal from the input operation to confirm whether the pressing operation or the touching operation is being performed on the front surface of the panel,~~ and

wherein the waveform generation means generates the first signal waveform after the signal from the input operation is detected by the input detection means and starts changing, and generates the second signal waveform after the signal from the input operation becomes stable so as to confirm the pressing operation.

4. (Previously Presented) The input apparatus as set forth in claim 1,  
wherein the waveform generation means varies the first signal waveform after the input operation is performed until the pressing operation is confirmed.

5. (Previously Presented) The input apparatus as set forth in claim 1,  
wherein when the input detection means detects that the input operation is being performed on a portion of the front surface of the panel where a pressing operation will not be recognized by the input detection means, the waveform generation means generates only the first signal waveform after the input operation is started until the pressing operation is confirmed.

6. (Currently Amended) An information process apparatus having an input apparatus for performing an input operation on a front surface of a panel, comprising:

input detection means for detecting an input operation ~~and confirming~~ performed on the front surface of the panel, and for determining whether the input operation is a pressing operation or a touching operation ~~being performed on the front surface of the panel by~~

determining whether a signal from the panel becomes stable for at least a predetermined period of time, the signal from the panel being generated based on the input operation;

waveform generation means for generating a first signal waveform having a first amplitude ~~when~~ while the input detection means detects that the input operation is being performed, and generating a second signal waveform having a second amplitude which is larger than the first amplitude ~~after~~ based on a determination by the input detection means ~~confirms that the signal from the panel has become stable for at least the predetermined period of time, thus indicating the input operation is [[a]] the pressing operation; and~~

panel deforming means for deforming the panel ~~corresponding to~~ based on the signal waveforms generated by the waveform generation means.

7. (Currently Amended) A remote control apparatus having an input apparatus for performing an input operation on a front surface of a panel, comprising:

input detection means for detecting an input operation ~~and confirming performed on the front surface of the panel, and for determining whether the input operation is a pressing operation or a touching operation being performed on the front surface of the panel by~~ determining whether a signal from the panel becomes stable for at least a predetermined period of time, the signal from the panel being generated based on the input operation;

waveform generation means for generating a first signal waveform having a first amplitude ~~when~~ while the input detection means detects that the input operation is being performed, and generating a second signal waveform having a second amplitude which is larger than the first amplitude ~~after~~ based on a determination by the input detection means ~~confirms that the signal from the panel has become stable for at least the predetermined period of time, thus indicating the input operation is a pressing operation; and~~

panel deforming means for deforming the panel ~~corresponding to~~ based on the signal waveforms generated by the waveform generation means.

8. (Currently Amended) A control method of an input apparatus for performing an input operation on a front surface of a panel, the method comprising:

detecting an input operation ~~and confirming~~ performed on the front surface of the panel;

generating a signal from the panel based on the input operation;

determining whether the input operation is a pressing operation or a touching operation being performed on the front surface of the panel by determining whether the signal from the panel becomes stable for at least a predetermined period of time;

generating a first signal waveform having a first amplitude ~~when it is detected that~~ while the input operation is being performed detected;

generating a second signal waveform having a second amplitude which is larger than the first amplitude ~~after~~ based on a determination that the signal from the panel has become stable for at least the predetermined period of time, thus indicating the input operation is the pressing operation ~~is confirmed;~~ and

deforming the panel corresponding to ~~one of~~ the generated signal waveforms.

9. (Currently Amended) An input apparatus for performing an input operation on a front surface of a panel, comprising:

input detection means for detecting an input operation ~~and confirming~~ performed on the front surface of the panel, and for determining whether the input operation is a pressing operation or a touching operation ~~being performed on the front surface of the panel~~ by

determining whether a signal from the panel becomes stable for at least a predetermined period of time, the signal from the panel being generated based on the input operation;

time period measurement means for measuring a time period ~~from~~ starting at when the input operation is detected until a determination by the input detection means that the signal from the panel has become stable for at least the predetermined period of time, thus indicating the input operation is the pressing operation is confirmed;

waveform generation means for generating a signal waveform having characteristics based on a length of the time period measured by the time period measurement means; and

panel deforming means for deforming the panel corresponding to the signal waveform generated by the waveform generation means.

10. (Currently Amended) The input apparatus as set forth in claim 9,

wherein the signal waveform generated by the waveform generation means has an amplitude reversely proportional to the length of time period measured by the time period measurement means.

11. (Currently Amended) The input apparatus as set forth in claim 9,

wherein the signal waveform generated by the waveform generation means when the length of the time period measured by the time period measurement means is shorter than a predetermined length of time ~~period~~ has an amplitude which is larger than an amplitude of the signal waveform generated by the waveform generation means when the length of the time period measured by the time period measurement means is longer than the predetermined length of time ~~period~~.

12. (Currently Amended) The input apparatus as set forth in claim 9,

wherein the input detection means detects ~~[[a]]~~ the signal from the input operation ~~that and the signal~~ varies as the input operation is being performed on the front surface of the panel and ~~uses the signal from the input operation to confirm whether the pressing operation or the touching operation is being performed on the front surface of the panel,~~ and

wherein the time period measurement means ~~confirms~~ determines the pressing operation is being performed when the signal that varies while the input operation is performed becomes stable.

13. (Currently Amended) An information process apparatus having an input apparatus for performing an input operation on a front surface of a panel, comprising:

input detection means for detecting an input operation ~~and confirming performed on the front surface of the panel,~~ and for determining whether the input operation is a pressing operation or a touching operation ~~being performed on the front surface of the panel by determining whether a signal from the panel becomes stable for at least a predetermined period of time, the signal from the panel being generated based on the input operation;~~

time period measurement means for measuring a time period ~~from starting at~~ when the input operation is detected until a determination by the input detection means that the signal from the panel has become stable for at least the predetermined period of time, thus indicating the input operation is the pressing operation ~~is confirmed;~~

waveform generation means for generating a signal waveform having characteristics based on a length of the time period measured by the time period measurement means; and

panel deforming means for deforming the panel corresponding to the signal waveform generated by the waveform generation means.

14. (Currently Amended) A remote control apparatus having an input apparatus for performing an input operation on a front surface of a panel, comprising:

input detection means for detecting an input operation ~~and confirming performed on the front surface of the panel, and for determining whether the input operation is a pressing operation or a touching operation being performed on the front surface of the panel by determining whether a signal from the panel becomes stable for at least a predetermined period of time, the signal from the panel being generated based on the input operation;~~

time period measurement means for measuring a time period ~~from starting at~~ when the input operation is detected until a determination by the input detection means that the signal from the panel has become stable for at least the predetermined period of time, thus indicating the input operation is the pressing operation is confirmed;

waveform generation means for generating a signal waveform having characteristics based on a length of the time period measured by the time period measurement means; and

panel deforming means for deforming the panel corresponding to the signal waveform generated by the waveform generation means.

15. (Currently Amended) A control method of an input apparatus for performing an input operation on a front surface of a panel, the method comprising:

detecting an input operation ~~and confirming performed on the front surface of the panel;~~

generating a signal from the panel based on the input operation;

determining whether the input operation is a pressing operation or a touching operation being performed on the front surface of the panel by determining whether the signal from the panel becomes stable for at least a predetermined period of time;

measuring a time period ~~from~~ starting at when the input operation is detected until a determination by the input detection means that the signal from the panel has become stable for at least the predetermined period of time, thus indicating the input operation is the pressing operation ~~is confirmed~~;

generating a signal waveform with a waveform generating unit, the signal waveform having characteristics based on a length of the measured time period; and

deforming the panel corresponding to the signal waveform generated by the waveform generation unit.

16. (Cancelled)

17. (Previously Presented) The input apparatus as set forth in claim 3, wherein the signal from the input operation changes based on a change in a coordinate location of the input operation on the front surface of the panel and the signal from the input operation is stable if the coordinate location of the input operation on the front surface of the panel does not change.

18. (Previously Presented) The input apparatus as set forth in claim 9, wherein the waveform generation means generates another signal waveform while the time period measurement means measures the time period, and the panel deforming means deforms the panel corresponding to the another signal waveform until the time period has been measured, and then deforms the panel corresponding to the signal waveform based on the length of the measured time period after the time period has been measured.



19. (Cancelled)

20. (Previously Presented) The input apparatus as set forth in claim 12, wherein the signal from the input operation varies based on a change in a coordinate location of the input operation on the front surface of the panel and the signal from the input operation is stable if the coordinate location of the input operation on the front surface of the panel does not change.